

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/851,765      | 05/09/2001  | Rory A. Heim         | 10006454-1          | 3814             |

7590

09/24/2002

HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P. O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER

NGHIEM, MICHAEL P

ART UNIT

PAPER NUMBER

2861

DATE MAILED: 09/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/851,765

Applicant(s)

HEIM ET AL.

Examiner

Michael P Nghiem

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2002 and 03 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 16-20 is/are rejected.
- 7) ☒ Claim(s) 15 and 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 11.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

The Amendment filed on July 24, 2002 has been acknowledged.

### ***Request for Continued Examination***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 3, 2002 has been entered.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or  
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Art Unit: 2861

Claims 1-14 and 16-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Cook (US 6,155,664).

Cook discloses all the claimed features of the invention including:

- an inkjet printing system (Fig. 1) configured for receiving a replaceable ink container (2), the replaceable ink container having ink extraction characteristics (ink specific information) that vary with ink extraction, the inkjet printing system comprising: an ink extraction control device (36) for determining ink extracted from the replaceable ink container (36 monitors ink level, 90, 102) and for selecting an ink usage rate print mode (at 90, 36 selects print primary ink or print secondary ink) from a plurality of different ink usage rate print modes (characteristics of primary and secondary ink may be slightly different, column 8, lines 31-43; thus, different ink usage rates) based on ink extraction characteristics of the replaceable ink container (ink characteristics affects extraction rate);

- the control device selects the print mode for selectively pausing printing (loop including 91 vs. loop including 104, Fig. 4) to reduce an average ink usage rate,

- the replaceable ink container has a gauge pressure characteristic based on ink usage varies with ink level within the ink container (negative pressure in 2 changes with ink level),

- the replaceable ink container has ink extraction characteristics that vary with ink level within the replaceable ink container (ink-specific information includes ink level information, column 5, lines 19-20),

Art Unit: 2861

- ink extraction characteristics are stored on an electrical storage device (12) associated with the replaceable ink container and wherein the ink extraction characteristics are provided to the control device after installation of the replaceable ink container into the inkjet printing system (Fig. 1),

- the information storage device is a semiconductor storage device (EEPROM or NVRAM device 12),

- a printhead (24) responsive to control signals for depositing ink on media and an ink delivery system (8) for delivering ink to the printhead (Fig. 1),

- a monitoring and control device (36) for monitoring ink delivered to the printhead by the ink delivery system (Fig. 1), and for adjusting rate of extraction from the ink delivery system during a print operation based on a rate of ink deposited on media and a rate of ink delivered to the printhead (Fig. 4, column 11, line 65, column 12, line 1),

- the monitoring device determines an amount of ink delivered to the printhead over a given time interval based on an extraction rate for an ink container that is determined based on ink remaining in the ink container (column 11, 34-46),

- the control device adjusts print rate to prevent the print rate from exceeding a rate of ink delivered to the printhead by more than a threshold value (does not print if drop count is less than a threshold level, 90, Fig. 4).

***Allowable Subject Matter***

3. Claims 15 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Reasons For Allowance***

4. The combination or method as claimed wherein each print mode has a different pause value (claim 3) or the control device adjusts print rate by selectively controlling numbers of nozzles activated (claims 15, 21) is not disclosed, suggested, or made obvious by the prior arts of record.

***Response to Arguments***

5. Applicant's arguments filed July 24, 2002 have been fully considered but they are not persuasive.

With respect to the 35 USC 102 rejection, Applicants argue that Cook does not disclose a control device for selecting an ink usage rate print mode from a plurality of ink usage rate print modes based on ink extraction characteristics of the replaceable ink container. In Cook, there is only one usage rate print mode.

Art Unit: 2861

Examiner's position is that Cook teaches a control device (36) for selecting an ink usage rate print mode from a plurality of ink usage rate print modes (primary usage rate vs. secondary usage rate) based on ink extraction characteristics of the replaceable ink container (ink usage rates depend on ink characteristics which are different between the primary and secondary inks, column 8, lines 31-43).

***Contact Information***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (703) 306-3445. The examiner can normally be reached on M-H from 6:30AM – 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hilten can be reached at (703) 308-0719. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-

0956.



**MICHAEL NGHIEM  
PRIMARY EXAMINER**

Michael Nghiem

September 19, 2002